

REMARKS

The Applicant already paid the official fee for four independent claims in this application and thus no further fees are believed payable.

The present response is submitted in response to the Office Action of December 20, 2005.

The Applicant respectfully requests that the Examiner enter the submitted amendments and discussions before reconsideration of the present Application and allowance of the presently pending claims.

Claims 9-20 are presently pending in the Application and the Examiner states that claim 15 is allowed and that claims 14 and 16 are dependent from a rejected claim, but would be allowable if rewritten in independent form including all recitations of the base claims and any intervening claims, for which the Applicant respectfully thanks the Examiner. In response, the Applicant thanks the Examiner for acknowledges the allowability of these claims but, at this staged of the prosecution, does not wish to rewrite claims 14 and/or 16 in independent form.

Next, the Examiner rejects claim 12 under 35 U.S.C. § 112 as indefinite and as not satisfying the enabling requirement and expresses an apparently related objection to the drawings under 37 CFR 1.83(a) as not showing the elements recited in claim 12. In summary, the Examiner apparently feels that the recitations of claim 12 are not sufficiently explicit to described the aspect of the invention claimed therein, are confusing with respect to the recitations of claim 9, are not illustrated in the drawings, and appear to be supported only at paragraph [032] of the specification.

In this regard, it is noted that in the Response to the Action of October 25, 2005 the Applicant amended the Figures by the addition of new Fig. 3 to illustrate the present invention as recited in claim 9 and as fully described in the specification as originally filed. As discussed with regard to that amendment, it was noted that the specification as originally filed, such as at paragraphs [015] through [019] and [029] through [035], as well as other places therein, states that the system and method of the present invention determines when the output speed reaches a predetermined shifting speed at which a "kick-down" shift is to be initiated and

determines the output speed gradient (ng-ab) at that point in time. The system and method of the present invention then determine a corresponding speed offset (nd-abkd) that is a function of the output speed gradient (ng-ab) and represents an adjustment that must be made in the upshift point speed so that the upshift occurs at the maximum desired engine speed, thereby avoiding over-speeding of the engine while providing maximum efficiency. The specification describes that this adjustment of the upshift point speed by the speed offset (nd-abkd) may be performed in a number of alternative ways.

As discussed, starting at paragraphs [016] and [028], it is described that in a first implementation of the present invention one or more characteristics curves relating output speed and gear state to "kick-down" shifting speed are stored in the system and identify the various predetermined "kick-down" shifting speeds for various output speeds and transmission gear ratios. These characteristics curves do not contain, include or represent an adaptation for variations in output speed gradient, but simply identify the predetermined "kick-down" shifting speed or speeds for a given gear ratio. During operation of the system, therefore, the system determines the current gear ratio and the current output speed and reads, from the stored curves, the speed at which a "kick-down" shift should occur should the output engine speed reach that "kick-down" speed. The system then determines the output speed gradient as the output speed reaches or approaches that "kick-down" speed, and determines the speed offset (nd-abkd) that must be applied to the "kick-down" speed, read from the stored curves, to determine the actual "kick-down" speed for the shift to occur given the current speed gradient.

Paragraphs [032] through [035] of the specification, as originally, filed describe a second implementation of the invention which is the subject matter of claim 12 (now claim 21), where paragraph [032] states, with reference to the first embodiment of the invention as described at paragraphs [016] through [031], that "instead of a speed offset an absolute kick-down switching characteristic line can be used". It is clear, therefore, that this statement describes that the upshift point speeds may be represented by "absolute" curves where the upshift point speeds may be read directly from the absolute curves as a function of the current output speed and

output speed gradient, rather than being calculated from the base curves described just above and a separately calculated speed offset (nd-abkd).

This implementation thereby clearly describes that all of the calculations of upshift point speeds for the possible combinations of output speed, gear ratio and speed gradient are performed beforehand and that the results of the calculations are represented by the absolute curves. As such, the upshift point speed for any combination of output speed, gear ratio and speed gradient can merely be read from the absolute curves rather than being separately calculated in "real time", that is, as the shift conditions occur while the vehicle is being driven. Stated another way, paragraph [032] states that the method steps of the present invention that appear as the first four steps in Fig. 3 are performed beforehand and are implemented as the absolute curves so that the first four steps, represented in Fig. 3, are essentially performed as a single step.

It is the belief and position of the Applicant that the implementation of the generation and use of "absolute" upshift point curves would be readily apparent to one of ordinary skill in the art given the associated description of the operation of the invention and of the two implementations of the engine speed upshift curves. It is the belief and position of the Applicant that the choice of and implementation of such curves, representing either a set of base curves to be adjusted by another factor or a set of absolute curves incorporating the adjustments, would be well understood by those of ordinary skill in the art as such matters are well known and understood in the arts. Further, it is respectfully submitted that any missing information could readily be arrived at without any undue experimentation.

Accordingly, the Applicant has herein above submitted an amendment to the Figures of the specification in the form of a new Fig. 4 in which the first four steps of Fig. 3 are, in accordance with the specification at paragraph [032], executed in a single step. In this regard, it must be noted that this amendment to the specification does not add any new matter to the specification or the drawings thereof as this amendment merely provides a drawing illustrating what is fully described in the specification as originally filed. This Applicant, therefore, respectfully requests that the Examiner enter new Fig. 4 and the corresponding

amendments to the text of the specification referring to Fig. 4 since they do not constitute any new subject matter.

It is, therefore, the belief and position of the Applicant that the specification and drawings of the present application, as originally, filed meet all of the requirements and provisions of 35 U.S.C. § 112 in providing an enabling disclosure of the claimed subject matter, as do the pending claims. It is, therefore, also the Applicant's belief that new Fig. 4 is not, in fact, required to provide the support required under 35 U.S.C. § 112 or 37 CFR § 1.83(a), but the Applicant is merely offering this amendment to the drawings so that the drawings more explicitly correspond with each and every element of the invention as described in the specification. The Applicant, therefore, respectfully requests that the Examiner reconsider and withdraw all objections to the drawings as not showing every featured of the invention specified in the claims, referring particularly with respect to the limitations recited in claim 21, under 35 U.S.C. § 112, as failing to comply with the enabling requirement.

Next, considering the Examiner's rejections of claim 12 (now claim 21) under 35 U.S.C. § 112 second paragraph, for failure to particularly point out and claim the invention, the Applicant rewrites the subject matter of claim 12 as new claim 21, as set forth above, to address and overcome each of the stated grounds for rejection under 35 U.S.C. § 112 and, in particular, to more explicitly recited the present invention as recited in claim 21 and so that this claim is in agreement with claim 9. In particular, the Applicant rewrites the subject matter of claim 12 as independent claim 21 which more explicitly recites the elements and limitations of the present invention wherein the speed offsets are incorporated into an absolute kick-down shifting. The Applicant therefore respectfully requests that the Examiner reconsider and withdraw all rejections of claim 21 under 35 U.S.C. § 112.

Next considering the rejections of claims over the prior art, the Examiner rejects claims 9-13 under 35 U.S.C. § 102 over Koenig et al. '893 and claims 17-20 under 35 U.S.C. § 103 over Koenig '893 in view of Tinschert et al. '556. The Applicant acknowledges and respectfully traverses the raised anticipatory and obviousness rejections in view of the following remarks.

First considering the present invention, the present invention is directed to a system and method for preventing an engine driving an automatic transmission from exceeding the maximum permissible engine speed while providing maximum engine efficiency by optimization of kick-down shifting speeds in the automatic transmission wherein the kick-down shifting speeds are adaptive to variations in vehicle load and road inclinations. According to the present invention, the system detects when the engine output speed reaches a predetermined shifting speed at which a gear shift, that is, a "kick-down" shift is to be initiated, determines an engine output speed gradient (ng-ab) at that point in time, and determines a corresponding speed offset (nd-abkd) that is a function of the engine output speed gradient (ng-ab), as illustrated in Fig. 2. The speed offset (nd-abkd) is then applied to modify the current upshift point speed so that the upshift actually occurs at the maximum permissible engine output speed.

As described in the specification of the present application, such as in paragraphs [007], [008], [009], [012], [015], [017], [018], [026], [027], [028], [029] and [030] for example, the output speed gradient (ng-ab), and thus the speed offset (nd-abkd), are determined from the output speed, rather than solely from the current throttle setting, and thus reflects a gradient in engine speed due to a number of factors. As described, these factors include not only the throttle setting, which may be constant when the output speed reaches the predetermined shifting speed, but also gradients in the output speed due to other causes, such as variations in the road inclination, such the direction of a road grade slope and the steepness of the road grade slope, and different vehicle loads. As a consequence, the speed offset (nd-abkd) value is also dependent upon such factors as the road inclination and vehicle load conditions, and as a consequence the upshift point speed is adapted to the road inclination and vehicle load conditions.

Considering the recitations of claim 9 as amended herein above in further detail, and noting that claims 10, 11 and 13 and claims 14 and 16 are all directly or indirectly dependent from claim 9, and thereby incorporate all recitations and limitations of claim 9 by dependency therefrom, and that claim 21 now directly incorporates the recitations of amended claim 9, the recitations of claim 9 are directed to a method for optimizing a kick-down upshift

point speed in a motor vehicle with an automatic transmission. As recited in claim 9, the method of the present invention includes the steps of determining, from an engine output speed gradient reflecting a road inclination, a speed offset (nd-abkd) representative of a time interval required for the engine to reach a maximum engine output speed, and applying the speed offset (nd-abkd) as an adjustment to the upshift point speed.

Turning now to the teachings of Koenig et al. '893, this reference discloses a method to optimize a kick down upshift operation of an automatic transmission by adapting the kick down shifting speed in such a manner that the engine speed cannot reach its governed maximum engine speed during the obligatory time delay between the shifting command and the real start of engine speed reduction, but will reach the governed maximum engine speed at about the time of the engine speed reduction due to the shift operation.

According to Koenig et al. '893, the upshift operation of the transmission is optimized by imposing a delay time DTME between the initialization of an upshift and the execution of the upshift where the delay time is a function of either or both of the transmission fluid temperature, as described in Figs. 3a-3b, 4 and 5 and at column 1, lines 53-54 and column 7, lines 24-63, and a correction factor for variations in the actual shift times of one transmission with respect to another, as described in column 8, lines 13-44. In this regard, it must be noted that the correction factor for variations in shift times between transmissions is, in fact, treated as a factor dependent upon transmission fluid temperature, as described at column 8, lines 38-42.

It must also be noted that both the delay times dependent upon the transmission fluid temperature and the delay times to correction variations between transmissions are determined empirically, as described for example at column 9, line 51 to column 10, line 19, and as a function of the difference between the actual shift rpm and the desired shift rpm divided by the engine speed acceleration at the time the desired shift rpm exceeds the desired shift rpm. Stated another way, the Koenig et al. '893 system waits until an error in shift time occurs and is detected, detects the transmission fluid temperature at which the error occurred, and then calculates a corrective delay time to be subsequently applied when the transmission fluid is at that temperature.

It must be further noted with respect to the above description of Koenig et al. '893 that in each instance described in Koenig et al. '893, such as in the Abstract, Figs. 3a-3b, 4 and 5, column 1, lines 54-63; column 7, lines 13-63; column 8, lines 13-44, and column 9, line 51 to column 10, line 19, the engine speed or acceleration referred to by Koenig et al. '893 is, in fact, the engine throttle input rather, for example, the actual engine or transmission output speed as indicated by, for example, the transmission or a transmission controller.

In summary, therefore, in the Koenig et al. '893 system the shift trigger speed is adapted or corrected according to a delay time that is a function of either the transmission fluid temperature directly or of transmission to transmission shift time variations, as represented by the engine throttle input at the time the shift actually occurs, which are also represented as a function of transmission fluid temperature and that represents the difference between the actual and desired engine speeds at which the shift occurs.

In addition, the delay times are not predicted values dependent upon current conditions at the time of a shift operation, but are retroactive values determined empirically from a history of shift speed errors that have actually occurred in the past. As a consequence, the Koenig et al. '893 system does not and cannot correct for current shift timing errors unless those errors fall within the ranges of previous errors for which the compensating time delays have been determined.

In a like manner, and for the same reasons, the Koenig et al. '893 system does not and cannot compensate for shift timing errors arising from any causes except those arising either from changes in the transmission fluid temperature or transmission to transmission variations in shift timing between the shift because other sources of shifting timing error, such as road conditions or road gradient, are not related to the causes of shift timing error that are monitored by the Koenig et al. '893 system.

As such, and while the operation of the Koenig et al. '893 system takes into account the actions of the driver regarding gear choices and a desired speed, the Koenig et al. '893 system does not recognize, account for or adapt to other influences on engine speed and shifting times. For example, and in particular, the Koenig et al. '893 system reflects only the speed desired

by the driver and does not represent, in any way, or indicate engine or vehicle speed factors such as the speeding up of the engine or the vehicle speed when traveling downhill or the slowing down of engine or vehicle speed when traveling uphill or when heavily loaded. As such, the shift initiation point compensation provided by the Koenig et al. '893 system may be in serious error when compared to the actual engine or vehicle speed and can adapt for such factors only indirectly, if at all.

It is, therefore, apparent that the present invention is fully and fundamentally distinguished over and from the teachings of Koenig et al. '893 because Koenig et al. '893 detects only the actual and desired engine speeds at which the shift occurs. The Koenig et al. '893 system addresses only the differences between speed desired by the driver and the actual vehicle speed and, in fundamental contrast from the present invention, does not and cannot correct for engine or vehicle speed factors such as the speeding up of the engine or the vehicle speed when traveling downhill or the slowing down of engine or vehicle speed when traveling uphill or when heavily loaded. That is, and in complete contrast from the present invention, Koenig et al. '893 system does not and cannot compensate for changes in transmission shift points due to road gradients or vehicle load.

The present invention is further fully and fundamentally distinguished over and from the teachings of Koenig et al. '893 because the Koenig et al. '893 system can detect errors in the actual shift speed, as compared to the desired shift speed, only after the errors have occurred, and can thereby correct only for future errors based upon past errors. In contrast, the system of the present invention, by detecting the gradient of the engine or transmission output speed, can predict a pending error or difference between the desired shifting speed and the maximum engine output speed and can thereby correct for any such errors before they occur.

Koenig et al. '893 thereby does not teach or suggest the recitations and limitations of claim 9 under the requirement and provisions of either 35 U.S.C. § 102 or 35 U.S.C. § 103. In particular, Koenig et al. '893 does not teach or suggest the features of "a method for optimizing a kick-down upshift point speed in a motor vehicle with an automatic transmission by determining an engine output speed gradient at a kick-down upshift point wherein the engine

output speed gradient reflects a road inclination; determining for the engine output speed gradient a speed offset representative of a time interval required for the engine output speed to read a maximum engine output speed; and applying the speed offset as an adjustment to the upshift point speed", as recited in claim 9 as amended herein above.

It is, therefore, the Applicant's position that the present invention, as recited in claim 9, is fully and patentably distinguished over and from Koenig et al. '893 under 35 U.S.C. § 102 and 35 U.S.C. § 103 for the reasons discussed above. In addition, it must be noted that the claims 10, 11 and 13 depend from claim 9 and thereby incorporate all recitations and limitations of claim 9, and claim 21 directly incorporates the limitations of claim 9, so that claims 10-13 are, likewise, fully and patentably distinguished over and from Koenig et al. '893 under 35 U.S.C. § 102 and 35 U.S.C. § 103 for the reasons discussed above. The Applicant therefore respectfully requests that the Examiner reconsider and withdraw all rejections of claims 9-13, under 35 U.S.C. §§102 or 103, over Koenig et al. '893, and allow claims 9-13.

Lastly, the Examiner rejects claims 17-20 under 35 U.S.C. § 103 over Tinschert et al. '556 wherein claim 17 is the sole independent claim and claims 18-20 are dependent from claim 17 and thereby incorporate all recitations and limitations of claim 17.

Tinschert et al. '556 relates to a system and method for adjusting the gear changing strategy of a transmission according to a multiplicity of factors, some of which may and often will be conflicting. In particular, Tinschert et al. '556 relates to the cyclic adaption of gear shift changing curves using a very complex correcting and adapting algorithm wherein a single basic gear change map is employed in all shifting strategies and the gear change points of the basic gear change map are corrected in a two-dimensional function space by using the specific algorithm taught by Tinschert et al. '556.

The Tinschert et al. '556 algorithm is based upon individually generating several correction values based upon two primary control variables and as functions of two variables relating to the driving conditions of the vehicle. These initial correction values are summed, using a peak value selection method, to determine an actual correction value for each of the two coordinate values defining a given gear change point and wherein the coordinate values

defining each gear change point respectively indicate of the speed and torque levels of the selected gear change points of the gear change curves. The summed correction values are then used to determine a common correction value for adjacent gear-change points, and the common correction value is then used in common for all the gear change points and, in particular, to adapt the coordinate values for each gear change point.

The Examiner refers to Fig. 11 as the basis for holding that Tinschert et al. '556 determines an output speed gradient reflecting a road inclination and determines an offset speed $ddkw$ that is dependent on the output speed gradient and such that the engine will reach a high engine output speed at an upshift point. The Examiner also states that while Tinschert et al. '556 does not explicitly teach using a maximum engine speed as the upshift point, it would be obvious to do so as this is merely determining an optimum working range. The Applicant respectfully disagrees with the Examiner's interpretation of Tinschert et al. '556's teachings, for the following reasons.

First, Fig. 11 alone is deceptive of Tinschert et al. '556's teachings because it implies, as the Examiner notes, that the Tinschert et al. '556 system operates with are the upward slope being traversed by the vehicle and the vehicle speed as the input variables used to generate the correction factor. The Examiner also apparently interprets the upward slope variable and the speed variable as being determined from the engine output speed, as is done in the present invention

In fact, however, the input to the Tinschert et al. '556 algorithm that is illustrated in Fig. 11 is an input from a function that is labeled only as "Determination Of Upward Slope", and Tinschert et al. '556 explicitly states, in column 9, lines 28-31, that "[t]he determination of the upward slope of the road is assumed to be universally known since it is sufficiently well known from the literature and does not form the subject matter of this patent application". Tinschert et al. '556 thereby not only has no teaching of how to determine a road slope as a gradient of the output speed of the engine, as in the present invention, but actually has no teaching at all of how the "upward slope" is determined. For example, and given, as discussed further below, that Tinschert et al. '556 does not sense or employ the engine output speed as

a variable in the algorithm and refers merely to "the upward slope of the road", Tinschert et al. '556 could just as readily be referring to the use of an inclinometer to determine the road slope, which is not uncommon.

It is, therefore, the belief and position of the Applicant that Tinschert et al. '556 is completely lacking in any relevant teaching or suggestion of how to determine a road slope and that Tinschert et al. '556 explicitly does not teach or suggest determining road slope from a gradient of an engine output speed, as does the present invention. It must also be noted that other distinctions between the present invention, discussed below in further detail, further indicate that Tinschert et al. '556 does not use, or even consider using, the engine output speed gradient for any purpose.

The Applicant further respectfully disagrees with the Examiner's interpretation of Tinschert et al. '556's teachings with regard to whether Tinschert et al. '556 determines an "offset speed". That is, and for example referring to column 6, lines 26-64; column 7, lines 4-15; column 9, lines 1-37, the variables operated with by Tinschert et al. '556 system and algorithm include only the throttle-valve angle (DKW) and the gearbox output speed (nab) and the correction values generated by the system and algorithm include only various correction values ddkw to the throttle valve angle DKW. That is, the only variables or factors that Tinschert et al. '556 system and algorithm employ for any purpose are the throttle-valve angle and the gearbox output speed and Tinschert et al. '556 does not determine with a gradient of the engine or transmission output speed or an "offset speed" to correct the shift point of the transmission, but instead generates only a throttle-valve angle correction.

Since Tinschert et al. '556 considers only the throttle-valve angle and the instantaneous gearbox output speed and generates only a throttle-valve angle correction and has no use for and does not even mention a gradient of the engine or transmission output speed, one of ordinary skill in the arts would also conclude that Tinschert et al. '556 does not determine road slope from a gradient of the engine or transmission output speed.

Lastly, and very significantly, it must be noted that the present invention is completely distinguished from Tinschert et al. '556 because the entire function and purpose of the

Tinschert et al. '556 system and method is fundamentally distinguished from that of the present invention, leading to the very basic distinctions between the present invention and Tinschert et al. '556 that have been discussed above. In particular, and as discussed herein above, the present invention is directed to a method for optimizing the kick-down upshift point speed in a motor vehicle with an automatic transmission at each upshift by insuring that the upshift occurs at the optimum engine speed. As discussed, the method of the present invention detects when the engine output speed reaches a predetermined shifting speed at which a gear shift, that is, a "kick-down" shift is to be initiated, determines the engine output speed gradient ($ng-ab$) at that point, and determines a corresponding speed offset ($nd-abkd$) that is a function of the engine output speed gradient ($ng-ab$). The speed offset ($nd-abkd$) is then applied to modify the current upshift point speed so that the upshift actually occurs at the optimum engine speed, which has been defined for purposes of the invention as being maximum permissible engine output speed.

It is, therefore, apparent that the method of the present invention does not determine or modify the gear change strategy of the transmission, that is, the set of points at which gear changes are to occur. The method of the present invention instead responds to the gear change strategy stored in, for example, a transmission controller, and, upon detecting when the engine output speed has reached an upshift point determines a speed offset that delays that upshift until the engine output reaches the optimum speed, which is the maximum permissible engine output speed. That is, the method of the present invention does not determine or modify the transmission shifting strategy, that is, the set of shift points that as a whole determines the shift characteristics of the transmission, but instead carries out a shifting strategy that is defined and implemented separately from the present invention but adjusts each upshift individually to optimize the engine output.

In fundamental contrast from the method of the present invention, the Tinschert et al. '556 system defines and determines the shifting strategy of the transmission as a whole, rather than adjusting the individual upshift operations. As described in detail in Tinschert et al. '556, the Tinschert et al. '556 system adjusts the entire shifting strategy of the transmission according to a number of very divergent factors, the sum and average of which determines how

the overall shifting strategy of the transmission will be adjusted. This is clearly described at, for example, column 8, lines 57 - 65, where Tinschert et al. '556 states that on upward slopes the upshift should take place only at higher engine speeds and, in the next sentence, states that if there is a requirement for heating up the catalytic converter, the vehicle should travel in the lower gears, and so on.

The fundamental operation of the Tinschert et al. '556 system defines and determines the overall shifting strategy of the transmission is further described at column 7, lines 4-18, where it states that "[t]he basic gear-change program is influenced in the direction of the abscissa by addition of a correction value ddkw to the instantaneously measured throttle-valve angle DKW. The procedure involved is therefore one of indirect modification of the basic gear-change program, in which the modified gear-change characteristics are generated by manipulation of the input signal DKW during evaluation of the basic gear-change program.

The correction value to be added is generated by the gear-change strategies and can be specified separately for the upshift (ddkw.sub.--) and downshift (ddkw.sub.-- r) characteristics and can have a positive or negative sign. By virtue of the principle on which it operates, it acts on all the gear-change characteristics simultaneously." (Emphasis added.) This conclusion is further supported, for example, at column 5, line 60 through column 6, line 9; column 6, line 18 through column 2, line 46; column 6, line 59 through column 7, line 63 and so on.

It is, therefore, apparent that Tinschert et al. '556 does not teach or suggest the present invention as recited in claim 17, and thereby in claims 18-20, to those of ordinary skill in the arts under the requirements and provisions of either 35 U.S.C. § 102 or 35 U.S.C. § 103. In fact, Tinschert et al. '556 is directed at an entirely and fundamentally different system and method than that of the present invention.

In particular, Tinschert et al. '556 does not teach or suggest a method for "a kick-down upshift speed optimization in a motor vehicle with an automatic transmission as a function of road inclination by determining at a kick-down point an output speed gradient (ng-ab) reflecting a road inclination, determining a speed offset (nd-abkd) dependent upon the output speed

gradient (ng-ab) and representative of a time interval required for the engine output speed to read a maximum engine output speed, and applying the speed offset (nd-abkd) as an adjustment to the upshift point speed such that the engine will reach a maximum engine output speed at an upshift point", as recited in claim 17.

It is, therefore, the Applicant's belief and position that the present invention as recited in claims 17, and thereby in claims 18-20, are fully and patentably distinguished over and from the teachings and suggestions of Tinschert et al. '556 under 35 U.S.C. § 103 and § 102. The Applicant, therefore, respectfully requests that the Examiner reconsider and withdraw all rejection of the claims over Tinschert et al. '556, under 35 U.S.C. § 102 or § 103, and allow claims 17-20.

If any further amendment to this application is believed necessary to advance prosecution and place this case in allowable form, the Examiner is courteously solicited to contact the undersigned representative of the Applicant to discuss the same.

In view of the above amendments and remarks, it is respectfully submitted that all of the raised rejection(s) should be withdrawn at this time. If the Examiner disagrees with the Applicant's view concerning the withdrawal of the outstanding rejection(s) or applicability of the Koenig '893 and/or Tinschert '556 references, the Applicant respectfully requests the Examiner to indicate the specific passage or passages, or the drawing or drawings, which contain the necessary teaching, suggestion and/or disclosure required by case law. As such teaching, suggestion and/or disclosure is not present in the applied references, the raised rejection should be withdrawn at this time. Alternatively, if the Examiner is relying on his/her expertise in this field, the Applicant respectfully requests the Examiner to enter an affidavit substantiating the Examiner's position so that suitable contradictory evidence can be entered in this case by the Applicant.

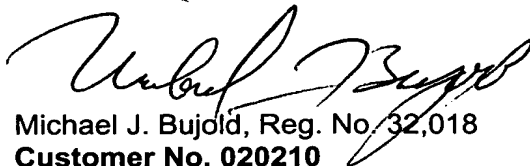
In view of the foregoing, it is respectfully submitted that the raised rejection(s) should be withdrawn and this application is now placed in a condition for allowance. Action to that end, in the form of an early Notice of Allowance, is courteously solicited by the Applicant at this time.

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The Applicant respectfully requests that any outstanding objection(s) or requirement(s), as to the form of this application, be held in abeyance until allowable subject matter is indicated for this case.

In the event that there are any fee deficiencies or additional fees are payable, please charge the same or credit any overpayment to our Deposit Account (Account No. 04-0213).

Respectfully submitted,



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